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FILE LAST UPDATED: 29 Jun 2008  (20080629/ED)

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=> s 87-89-8/biol,anst,ract
          9934 87-89-8
       7409415 BIOL/RL
          6384 87-89-8/BIOL
                 (87-89-8 (L) BIOL/RL)
          9934 87-89-8
       1213403 ANST/RL
           845 87-89-8/ANST
                 (87-89-8 (L) ANST/RL)
          9934 87-89-8
       3125884 RACT/RL
           461 87-89-8/RACT
                 (87-89-8 (L) RACT/RL)
L1        7412 87-89-8/BIOL,ANST,RACT

=> s 60-27-5/biol,anst,ract
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       7409415 BIOL/RL
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         21108 60-27-5
       1213403 ANST/RL
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         21108 60-27-5
       3125884 RACT/RL
           216 60-27-5/RACT
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                (60-27-5 (L) RACT/RL)
L2       18293 60-27-5/BIOL,ANST,RACT

=> s L1 and L2
L3          87 L1 AND L2

=> s L3 and urine
        227568 URINE
          4799 URINES
        228046 URINE
                (URINE OR URINES)
L4          20 L3 AND URINE

=> s L4 and (glucose or insulin or diabet##)
        451491 GLUCOSE
           878 GLUCOSES
        451689 GLUCOSE
                (GLUCOSE OR GLUCOSES)
        222481 INSULIN
          5351 INSULINS
        222563 INSULIN
                (INSULIN OR INSULINS)
        160285 DIABET##
L5          16 L4 AND (GLUCOSE OR INSULIN OR DIABET##)

=> s L5 and py>2003
       5919684 PY>2003
L6           8 L5 AND PY>2003

=> s L5 and py<2003
      22935492 PY<2003
L7           8 L5 AND PY<2003

=> d L7 ibib abs 1-8

L7   ANSWER 1 OF 8  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2002:463958  CAPLUS <<LOGINID::20080630>>
DOCUMENT NUMBER:         138:22988
TITLE:                   Correlation between urinary excretion of polyol
                         products and type IV collagen in Japanese type 1
                         diabetic patients
AUTHOR(S):               Takaike, Hiroko; Miura, Junnosuke; Ohsawa, Mari;
                         Uchigata, Yasuko; Iwamoto, Yasuhiko
CORPORATE SOURCE:        Diabetes Center, Tokyo Women's Medical University
                         School of Medicine, Tokyo, Japan
SOURCE:                  Tonyobyo (Tokyo, Japan) (2002), 45(3),
                         173-180
                         CODEN: TONYA4; ISSN: 0021-437X
PUBLISHER:               Nippon Tonyobyo Gakkai
DOCUMENT TYPE:           Journal
LANGUAGE:                Japanese
AB   Poor glycemic control greatly influences the development of
     diabetic complications, and acceleration of the polyol pathway is
     one of the main factors causing microangiopathy.  We clarified whether the
     urinary excretion of polyol products was related to clin. severity of
     diabetic complications in 153 type 1 diabetic patients
     whose urinary albumin creatinine ratio (ACR) was under 100 mg/g Cr.  Optic
     fundi were checked by ophthalmologists and ACR, type IV collagen
     creatinine ratio (U-IV-C), and urinary polyol products such as sorbitol,
     fructose, and myo-inositol were measured by using a single-void first
     morning urine.  Patients with retinopathy excrete more fructose
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and myo-inositol greater than those without retinopathy. ACR showed no relationship with urinary polyol products. Urinary type IV collagen independently showed a pos. correlation to urinary myo-inositol. Production of type IV collagen was accelerated by high glucose, indicating expansion of the mesangium. Increased urinary myo-inositol may reflect activation of the polyol pathway in the diabetic kidney. Measurement of both urinary myo-inositol and U-IV-C is important in ascertaining the existence of renal impairment caused by high glucose.

L7 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:514788 CAPLUS <<LOGINID::20080630>>
DOCUMENT NUMBER: 135:89514
TITLE: Enzymic method for diagnosing pre-diabetes group
INVENTOR(S): Takatsuma, Takashi; Takahashi, Mamoru
PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001190299	A	20010717	JP 2000-335277	20001101 <--
JP 3975279	B2	20070912		

PRIORITY APPLN. INFO.: JP 1999-311482 A 19991101
AB A convenient and accurate enzymic method is provided for distinguishing diabetes patients including pre-diabetes group from non-diabetes patients using samples collected from patients. A sample (e.g., urine) is treated with a myoinositol-degrading enzyme without pretreatment, and myoinositol contained in the sample is degraded. The myoinositol content in the sample is determined by measuring the degradation product. Depending upon the determined value, a distinction is made among normal persons, pre-diabetes group patients (boundary type, impaired glucose tolerance, impaired fasting glycemia, insulin resistance) and diabetes patients. A dehydrogenase (e.g., inositol dehydrogenase from Klebsiella, Bacillus sp., Flavobacterium), a kinase (e.g., inositol kinase), an oxidase (e.g., inositol oxygenase, pyranose oxidase) or else is used as an enzyme.

L7 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:579320 CAPLUS <<LOGINID::20080630>>
DOCUMENT NUMBER: 133:279942
TITLE: Aldose reductase-deficient mice develop nephrogenic diabetes insipidus
AUTHOR(S): Ho, Horace T. B.; Chung, Sookja K.; Law, Janice W. S.; Ko, Ben C. B.; Tam, Sidney C. F.; Brooks, Heddwen L.; Knepper, Mark A.; Chung, Stephen S. M.
CORPORATE SOURCE: Institute of Molecular Biology, The University of Hong Kong, Hong Kong, Peop. Rep. China
SOURCE: Molecular and Cellular Biology (2000), 20(16), 5840-5846
CODEN: MCEBD4; ISSN: 0270-7306
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Aldose reductase (ALR2) is thought to be involved in the pathogenesis of

various diseases associated with diabetes mellitus, such as cataract, retinopathy, neuropathy, and nephropathy. However, its physiol. functions are not well understood. We developed mice deficient in this enzyme and found that they had no apparent developmental or reproductive abnormality except that they drank and urinated significantly more than their wild-type littermates. These ALR2-deficient mice exhibited a partially defective urine-concentrating ability, having a phenotype resembling that of nephrogenic diabetes insipidus.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:207348 CAPLUS <<LOGINID::20080630>>
DOCUMENT NUMBER: 130:234331
TITLE: Chemical diagnosis based on urine metabolites measured by GC/MS
INVENTOR(S): Matsumoto, Isamu; Chou, Shunka
PATENT ASSIGNEE(S): Mills Seimei Kagaku Kenkyujo K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11083860	A	19990326	JP 1997-245252	19970910 <--
JP 3129250	B2	20010129		

PRIORITY APPLN. INFO.: JP 1997-245252 19970910

AB The diagnosis is performed by (1) treating samples, e.g. urine components extracted from urine-impregnated filter papers, with urease, (2) adding internal stds. to the samples, (3) trimethylsilylating the metabolites including creatinine (I) for GC/MS, (4) multiplying the measured values of I by a correction coefficient for I calculated by any other anal. method such as Jaffe method, (5) displaying the contents of the other metabolites as the measured values to the corrected I value, (6) inputting the measured values to a calculator for comparing those values with normal values, and (7) displaying abnormal values and findings corresponding the abnormal values the method eliminates the need for parallel analyses for I by GC/MS anal. and chemical anal.finding list. The method eliminates the need for parallel analyses for I by GC/MS anal. and chemical anal. The method is useful for diagnosis of metabolic disorders, e.g. diabetes, gout, etc.

L7 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:140990 CAPLUS <<LOGINID::20080630>>
DOCUMENT NUMBER: 126:141757
ORIGINAL REFERENCE NO.: 126:27323a,27326a
TITLE: Method of optically measuring a component in solution
INVENTOR(S): Wang, Yung Xiang; Dou, Xiaoming
PATENT ASSIGNEE(S): Kyoto Dai-Ichi Kagaku Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 58 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

EP 751388	A2	19970102	EP 1996-110521	19960628 <--
EP 751388	A3	19970507		
EP 751388	B1	20020911		
R: DE, FR, GB, IT				
JP 09015155	A	19970117	JP 1995-186341	19950628 <--
JP 09079982	A	19970328	JP 1995-262338	19950913 <--
US 5796476	A	19980818	US 1996-672026	19960626 <--
CN 1157919	A	19970827	CN 1996-108652	19960628 <--
CN 1114098	B	20030709		

PRIORITY APPLN. INFO.: JP 1995-186341 A 19950628
JP 1995-262338 A 19950913

AB A sample solution containing protein is irradiated with excitation light of a single wavelength which is emitted from a light source so that light scattered from the sample solution is received and separated into its spectral components in a spectroscope, thereby obtaining light scattering spectra. Protein is quant. measured through intensity of a light scattering spectrum in a shift wavenumber of 100-3100 cm-1 with respect to the excitation wavelength among the light scattering spectra or an integral value in a proper range therein. As to a body fluid sample (e.g., urine, blood, blood plasma, blood serum, saliva, or sweat), the sample is irradiated with excitation light, and Raman scattering spectral intensity values are measured at a plurality of wavenumbers in an arbitrary wavenumber range, and a plurality of components in the sample are analyzed simultaneously by multivariate regression anal.

L7 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:160276 CAPLUS <<LOGINID::20080630>>
DOCUMENT NUMBER: 114:160276
ORIGINAL REFERENCE NO.: 114:27007a,27010a
TITLE: Automated screening of urine samples for carbohydrates, organic and amino acids after treatment with urease
AUTHOR(S): Shoemaker, James D.; Elliott, William H.
CORPORATE SOURCE: Med. Cent., Saint Louis Univ., St. Louis, MO, 63104, USA
SOURCE: Journal of Chromatography (1991), 562(1-2), 125-38
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Eighty-five clin. urine samples and nineteen urine samples previously found by other labs. to suggest genetic metabolic defects were prepared for trimethylsilylation by treatment with urease, followed by azeotropic dehydration. The Target Analyte Search program provided with the VG Trio 2 gas chromatograph-mass spectrometer required 6 min to quantify 103 compds. relative to endogenous urinary creatinine. This technique has been used to confirm diagnoses including cystinuria, lysinuria, medium-chain acyldehydrogenase deficiency, ornithine transcarbamylase deficiency, aspartylglucosaminuria, methylmalonic, propionic and glutaric acidurias.

L7 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:20351 CAPLUS <<LOGINID::20080630>>
DOCUMENT NUMBER: 114:20351
ORIGINAL REFERENCE NO.: 114:3573a,3576a
TITLE: Urinary polyol profiles in patients with chronic liver diseases and their correlation with severity, as obtained by capillary gas chromatography
AUTHOR(S): Haga, Hidehiko; Horie, Yukio; Ikeda, Hitoshi; Oka, Hiroshi; Nakajima, Terumi
CORPORATE SOURCE: Fac. Pharm. Sci., Univ. Tokyo, Tokyo, 113, Japan

SOURCE: Analytical Sciences (1990), 6(5), 667-70
CODEN: ANSCEN; ISSN: 0910-6340
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A capillary gas chromatog. method for urinary polyol profiling anal. was applied to a study of urinary polyols in patients with chronic liver diseases. There was no statistically significant difference in any urinary polyols between the groups with and without glucose infusion. Ribitol, xylitol, and sorbitol in patients significantly increased, and arabitol significantly decreased compared with the amts. from normal subjects. It is striking that the decrease of arabitol and the increased abnormal incidence of mannitol and sorbitol were well correlated with the severity of chronic liver diseases according to the Child-Turcott Classification. Urinary polyol profiling anal. may be useful in assessment of hepatic functional reserve.

L7 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:20350 CAPLUS <<LOGINID::20080630>>
DOCUMENT NUMBER: 114:20350
ORIGINAL REFERENCE NO.: 114:3573a,3576a
TITLE: Diagnostic profiling analysis of polyols in urine samples of patients with various diseases performed by capillary gas chromatography
AUTHOR(S): Haga, Hidehiko; Kamei, Sachiko; Ohkubo, Akiyuki; Nakajima, Terumi
CORPORATE SOURCE: Fac. Pharm. Sci., Univ. Tokyo, Tokyo, 113, Japan
SOURCE: Analytical Sciences (1990), 6(5), 657-66
CODEN: ANSCEN; ISSN: 0910-6340
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A capillary gas chromatog. method, based on trifluoroacetylated polyols, was applied to a study of urinary polyols in normal subjects and in patients with various diseases. Polyol excretion patterns during fasting periods and circadian variants were studied in normal subjects. Twenty-four h urine sample sets of normal subjects showed almost constant polyol profiles, suggesting the existence of a polyol regulation system in the body. Excretion patterns of 10 polyols were studied in 100 specimens of 24-h urine samples from patients hospitalized with various diseases. Polyol profiles showed patterns characteristic of pathol. states of the diseases: such as diabetes mellitus, chronic renal failure, and chronic liver diseases. The possibility of diagnosis of several diseases by urinary polyol profiles is presented.

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